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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DANG, KHANH

ART UNIT PAPER NUMBER

2111

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,355

Applicant(s)

CHOI, YOUNG-HUN

Examiner

Khanh Dang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-32 is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

In claim 18, line 3, "a USB bus system" should be changed to – a second USB system – to correct an obvious error.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Lou et al. (Lou, 2003/0093599).

As broadly drafted, these claims do not define any structure/step that differs from Lou.

With regard to claim 6, Lou discloses a display apparatus (shown generally at Figs. 1 and 4), in which in a plurality of universal serial bus (USB) systems (121 and 122, for example) sharing one display device (signal switch box 10 including video panel control device module 54 and on screen display 56) are included, and USB devices (USB peripherals 16, 18, 20, 22, 242, 242, for example), connected to the

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display device (signal switch 10 including video panel control device module 54 and on screen display 56) and USB devices (USB peripherals 16, 18, 20, 22, 242, 242, for example) connected to the plurality of USB systems (121 and 122, for example) are shared, comprises: a relay unit (a switching device in signal switch box 10) included in the display device (since the signal switch 10, including video panel control device module 54 and on screen display 56, is capable of displaying information, it is clear that the signal switch box can be called "display device"), while output of a first predetermined USB system (121, for example), among the plurality of USB systems (121 and 122, for example) is transmitted to the display device (signal switch box 10 including video panel control device module 54 and on screen display 56), the relay unit (a switch module in signal switch box 10) selects to share the USB device being used in the USB system with a second predetermined USB system (it is clear that any of the USB peripherals 16, 18, 20, 22, 242, 242, for example, is shared between the plurality of USB systems 121 and 122, for example, and the switch module of signal switch box 10 can select any shared USB peripheral for communication with any of a plurality of USB systems 121 and 122 via a selected channel, for example), and if a first driver (any USB device can only operate once supplied with USB driver associated with the USB host system or controller), which corresponds to the shared USB device in the first USB system is disabled (once the host USB system is disconnected or not in use with a shared USB peripheral, it is clear that the driver associated with by such a system or controller is disabled and no longer associated with the shared USB peripheral), the relay unit buffers information transmitted from the shared USB device in the display

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device (it is clear that information from a particular shared USB peripheral must be temporary stayed in the switch module before the switch module can completely establish a new channel connecting a particular shared USB peripheral and a particularly USB system via a particular channel) and transmits the information buffered in the display device to a second driver (it is clear that once connection has been established for a particular shared USB peripheral and a particular USB system, the USB driver associated by that particular host system or a controller must be now responsible for communication with the switched USB peripheral), which corresponds to the shared USB device in the second USB system.

With regard to claim 7, it is clear from the above discussion that if the shared USB device is a keyboard (16, for example) or mouse (18, for example), an input signal of the display device is switched so that output of the second USB system are transmitted to the display device. See also Fig. 4 and description thereof.

With regard to claim 8, it is clear from the above discussion that if the USB peripheral is released from the second USB system (one of USB systems 121 and 122, for example) and if the first driver (USB driver associated with one of the USB systems 121 and 122), which corresponds to the shared USB device (any shared USB peripheral), in the first USB system is enabled, the relay unit transmits the information transmitted from the USB device to the first driver, which corresponds to the USB device, in the first USB system (it is clear that once connection has been established for a particular shared USB peripheral and a particular USB system or controller, the

USB driver associated by that particular host system or controller must be now responsible for communication with the switched USB peripheral).

With regard to claims 1-5, see discussion above.

Response to Arguments

Applicants' arguments filed 10/13/2005 have been fully considered but they are not persuasive.

At the outset, Applicants are reminded that claims subject to examination will be given their broadest reasonable interpretation consistent with the specification. *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997). In fact, the "examiner has the duty of police claim language by giving it the broadest reasonable interpretation." *Springs Window Fashions LP v. Novo Industries, L.P.*, 65 USPQ2d 1862, 1830, (Fed. Cir. 2003). Applicants are also reminded that claimed subject matter not the specification, is the measure of the invention. Disclosure contained in the specification cannot be read into the claims for the purpose of avoiding the prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d, 155 USPQ 687 (1986).

With this in mind, the discussion will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitations that are not in the claims or any arguments that are irrelevant and/or do not relate to any specific claim language will not be warranted.

The Lou 102(e) Rejection:

Applicants argue that claim 1 and 6 are directed to “a method and apparatus in which a plurality of universal serial bus (USB) systems share one display device and where information is buffered when transmitting that information to a second (shared) USB system. This differs from Lou where buffering data transfer is not discussed. Lou emphasizes emulation of a computer and asynchronous or synchronous switching of USB peripherals to avoid interruption of data, rather than Applicant's invention where buffering of data is taught to preclude loss of data during switching.”

Contrary to Applicants' argument, in Lou, the switch 10 as shown in Fig. 4 is readable as a “relay unit” for buffering information. As disclosed by Lou, the signal switch 10 comprises a central processing unit (“CPU”) 30 for managing the signal switch 10. A USB hub switch module 32 is connected to the CPU 30 and is configured to communicate with a plurality of computer systems 12 through first output ports 34. The USB hub switch module 32 is also configured to communicate with peripheral devices 20 through output ports 36. In FIG. 4, four connections are shown between first output ports 34 and the USB hub switch module 32 (see [0031]). Further, Lou discloses that the USB hub switch module 32 is a bridge between peripheral devices 20 and computer systems 12 and allows the signal switch 10 to connect each of a plurality of computer systems to one or more than one peripheral device (see [0031]). Further, in Lou, a plurality of “USB systems” (claim 1 and 6, for example) or computer systems (in Lou) shares one display device (in Lou, since the signal switch 10, including video panel control device module 54 and on screen display 56, is capable of display information, it

is clear that the switch box 10 can be called "display device"). Communicating information between the "USB systems" or "computers systems" and the shared USB peripheral(s) must always passed through and processed by the USB device control module 38 connected to the CPU 30 and the USB HUB switch module 32, and management program 42 of switch box 10 (Fig. 4). Thus, it is clear that information is temporarily stayed in the "relay unit" or switch box 10 (Fig. 4).

With regard to claims 6-8, Applicants argue that Lou does not disclose a "relay circuit that transmits buffered information." Contrary to Applicants' argument, as discussed above, the switch box 10 (Fig. 4) is readable as the "relay unit."

Communicating information between the "USB systems" or "computers systems" and the shared USB peripheral(s) must always passed through and processed by the USB device control module 38 connected to the CPU 30 and the USB HUB switch module 32, and management program 42 of switch box 10 (Fig. 4) before such information can be directed to a selected device/system. Thus, it is clear that information is not only stayed in the "relay unit" or switch box 10 (Fig. 4) but such information is also transmitted to a selected device/system.

Allowable Subject Matter

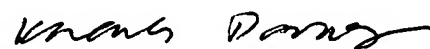
Claims 9-32 are allowed.

US Patent Nos. 6,901,455 to Gough, 6,934,792 to Nakazawa, and 6,557,170 to Wilder et al. are cited as relevant art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 571-272-3626.



Khanh Dang
Primary Examiner